With friendly support: Empa
Materials Science and Technology

The event is sponsered by KIT / NanoMat and Empa and is therefore **free of charge**. However registration is required: **www.empa-akademie.ch/nanovision**

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Directions to Empa:
https://www.empa.ch/documents/20195/56305/directions_duebendorf_de.pdf/

Organizing committee:

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KIT Karlsruhe Institute of Technology

Science-Industry-Symposium

NanoVision 2019

Printable Functional Oxides for Electronics and Energy Applications

Featuring a young researchers workshop on the second day

Location

// **Empa, Dübendorf (CH)**
Room VE 102

// **February 20th – 21st, 2019**

nanomat

PRINTABLE FUNCTIONAL OXIDES FOR ELECTRONICS AND ENERGY APPLICATIONS

The Nanovision is the annual symposium of the research and innovation cluster NanoMat of the Karlsruhe Institute of Technology attracting scientists and experts from academia and industry from various fields of nanotechnology. The Nanovision 2019 on February 20th/21st will be hosted and co-organized by Empa, one of NanoMats partners on the topic of pintable functional oxide materials. We will focus on material processing, functionalization, printed devices and systems ranging from electronic applications to energy storage elements in form of printable batteries. Also the novel and interesting class of high entropy oxides will be discussed.

Following the theme of the cluster "create innovation by collaboration" the workshop format will include a conference session at the first half of the workshop followed by a networking dinner.

On the second day in the morning, there will be a young researcher session (PhD and Post-Doc level) and discussions in small groups with the purpose of knowledge transfer and matchmaking for future collaborative projects. Each attendee is supposed to give a 5-minute presentation to cover:

- research highlight
- technical expertise to offer
- cooperation need

Registration is possible for both parts of the workshop individually.

PROGRAM

WEDNESDAY, FEBRUARY 20th, 2019

12:45 **Registration and Welcome**

13:15 **Introduction by Empa / NanoMat**

13:30 **From Printed Materials to Electronic Devices**
Subho Dasgupta (IISc)

14:00 **Synthesis of metal oxide nanoparticle inks**
Alessandro Lauria (ETHZ)

14:30 **Coffee break**

15:00 **Electrohydrodynamic Printing**
Ralph Spolenak (ETH)

15:30 **High Precision Printing**
Jakob Heier (Empa)

16:00 **Coffee break**

16:30 **High Entropy Oxides**
Horst Hahn (KIT)

17:00 **High Entropy Oxides for Printed Batteries**
Ben Breitung (KIT)

17:30 **Lab-Tour on demand**

18:30 **Start of buffet dinner with discussion**

THURSDAY, FEBRUARY 21st, 2019

Young Researcher Session

9:00 **6 x 5-Minute-Pitches**

9:30 **Break for discussion**

10:00 **6 x 5-Minute-Pitches**

10:30 **Break for discussion**

11:30 **Summary / Closing remarks**